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AGO DA ltr dtd 29 Apr 1980; AGO DA ltr dtd 29 Apr 1980	

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① Extract from operational report
for quarterly period ending 31 Jul 69.

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

18
OACSFOR

IN REPLY REFER TO

AGDA (M) (19 Nov 69)

19
FOR OT-UT-693214

20
11 31 Jul 69
24 November 1969

SUBJECT: Extract from Operational Report - Lessons Learned, Headquarters,
4th Infantry Division Artillery, Period Ending 31 July 1969, (U) 8

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1. Extract from subject report is forwarded for review and evaluation in
accordance with paragraph 5b, AR 525-15. Evaluations and corrective
actions should be reported to ACSFOR OT UT, Operational Reports Branch,
within 90 days of receipt of covering letter.

2. Information contained in this report is provided to insure appropriate
benefits in the future from lessons learned during current operations and
may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

ROBERT E. LYNCH
Colonel, AGC
Acting The Adjutant General

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4th Infantry Division Artillery

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 4TH INFANTRY DIVISION ARTILLERY
APO San Francisco 96262

AVDDD-AC

31 July 1969

SUBJECT: Operation Report - Lessons Learned for the Period Ending 31 July 1969
RCS - CSFOR - 65 (R1)

SECTION 2 (C) Lessons Learned: Commander's Observations, Evaluations and Recommendations.

1. (C) Intelligence

a. Observation: When attacking a US Firebase in which a countermortar radar is located, the NVA often emplaces its mortars on opposite sides of the target. The mortar opposite the direction of scan begins the attack; then, if the antenna is slewed toward the active firing position, the original attacker ceases firing while the opposite position begins to fire.

Evaluation: The greatest single need, for effective countermortar operations, is a 6400-mil, movement-sensitive countermortar radar. Until the current radar can be replaced, a means must be found to screen or disguise its direction of scan.

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31 July 1969

SUBJECT: Operation Report - Lessons Learned for the Period Ending 31 July 1969 RCS - CSFOR -65 (RI)

Recommendation: That camouflage nets be issued to and used by radar sections in order to screen its direction of scan from enemy observation. Parachutes were also tried, but the static electricity which collected on them cluttered the radar scope to the extent that it was useless.

b. Survey By Counter Mortar Radar

Observation: In the Central Highlands, it is often impossible to carry survey control in to a battery's position due to the terrain and tactical situation. The inaccuracies in current maps available make it almost impossible to get an accurate location by resection or traverse.

Evaluation: On several occasions the 2d Bn, 9th Arty AN/MPQ-4 Radar was used to establish the location of base piece. The location was determined by having the base piece fire a charge 1, EA. At this slow velocity you are able to get an accurate location within 50 meters.

2. Operations.

a. Use of helicopter and orienting stations and AN/MPQ-4 Radar to determine location of friendly villages.

Observation: Accurate location of friendly villages must be accomplished in order to preclude friendly fires on these villages.

Evaluation: Normally visual reconnaissance has been the primary means of locating those villages. However often times the maps have been found to be incorrect and during the Monsoon Season terrain features change considerably. Two solutions have been devised to accurately locate these villages both of which require the use of a helicopter. If the village is within range of the AN/MPQ-4 Radar, the helicopter can hover over the village and the radar record the ten place coordinates of the village. If two surveyed orienting stations are available, the helicopter can hover over the village and the village located by intersection from the two orienting stations.

Recommendation: That the two above methods of locating friendly villages be used when the assets are available.

b. Use of Expended 105mm Cannisters For Securing M102 Base Plates

Observation: This battalion experienced difficulty in preventing displacement of the M102 Howitzer when emplaced in soft soil.

Evaluation: After the base plate is emplaced and staked then use expended 105mm cannisters and drive the cannisters into the ground around the outside of the base plate. Three circles of cannisters are normally sufficient to prevent displacement.

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31 July 1969

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Recommendation: That all units having the M102 Howitzer be informed of this method of preventing base plate displacement.

c. Use of Pipe Culvert 72"

Observation: Providing immediate overhead cover for personnel of a battery occupying a new firebase becomes extremely difficult.

Evaluation: Providing personnel with overhead cover during the first night after occupation of a new firebase is a matter of concern to all commanders. After the battery is laid and ready to fire it normally requires the entire battery working all night if personnel tankers are to be constructed so some degree of overhead cover can be provided. One method this battalion has found to be effective is to use pipe culvert 72 inch as personnel bunkers. This culvert can be emplaced and covered with sandbags in a minimum amount of time thereby affording the personnel some degree of protection. These positions are further improved as time allows.

Recommendation: That units be made aware of this method of providing overhead cover to personnel upon occupation of a new firebase.

d. Increased effectiveness of CS Drops

Observation: In order to increase the effectiveness of CS drops with Artillery Follow-ups coordination is necessary between the Artillery Aerial Observer and the Chemical Officer.

Evaluation: To be effective and to achieve the desired results the artillery follow-up must begin as soon as the CS drop ship clears the target area. In order to insure rapid reaction the following prior coordination must be accomplished.

(1) Center of mass grid for the CS drop must be sent to firing elements so that first round data can be computed and set on the guns prior to the drop.

(2) Artillery air observer (in separate aircraft), chemical officer and firing elements must work on a common rapid frequency (an artillery fire push is recommended).

(3) Just prior to making the drop, the chemical officer should make final coordination with the artillery observer to insure that he is ready to observe and the firing elements are ready to shoot.

(4) Grids should be cleared prior to lift-off of the drop ship and observer's aircraft.

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Recommendation: That as a minimum, the coordination listed above is accomplished prior to DS-Artillery follow-ups.

c. Placement of 292's

Observation: During recent attacks on firebases it has been observed that positioning of 292's makes a prime area of target for enemy fire.

Evaluation: From several recent enemy encounters it has been observed that 292's placed near primary battery installations, aids the enemy in rapidly detecting their locations. Such installations include Executive Officers Post, Fire Direction Center and Liaison shops.

Recommendation: That an extension COAX cable be issued or made available so that 292 antennas may be emplaced away from the command and control facility.

f. Mortar Wind Corrections.

Observation: The deflection transfer limits for mortars are identical to those used by the artillery (400 mils left and right for the registered deflection). In order to achieve truly accurate 6400 mil firing capability, either eight registrations per charge/elevation must be conducted or correction factors to compensate for cross wind and range wind must be applied.

Evaluation: Eight registrations for each charge of the 81mm mortar or each elevation of the 4.2-inch mortar is impractical. Wind cards for the 81mm and 4.2-inch mortar would be an effective solution but none have been published. By extracting pertinent data from the current tabular firing tables, this headquarters has developed a circular wind card patterned after the Fischer Wind Wheel for use in the base camp FDC. The wind wheel is constructed in the same manner as the Fischer Wind Wheel with a circular template mounted on an M17 plotting board reflecting the correction factors for a range wind and cross wind of one knot for each 200 mils of chart direction of wind, and for the following charges/elevations: 81mm-charges 4 and 5, 6, 7 and 8, 9; 4.2- elevations 900 w/o extension, 900 w/extension, and 800 w/extension. The correction factors are determined by multiplying the unit correction factors for a one-knot range wind and cross wind (TFT, Table D, Columns 9, 12, and 13) by the vector components for the particular 200 mil chart direction of wind (Table A). Thirty-two radial lines are drawn on the template at each 200 mil interval and the correction factors for that chart direction of wind are written along the radial for each charge/elevation. A deflection scale is placed around the outer edge of the template, oriented so that the base deflection (2800 coincides with the azimuth of lay (0-6400 is located at the top of the board, azimuth increasing in a clockwise direction). Should an azimuth scale be used instead of deflection, the scale need not be reoriented for different azimuths of lay and the 0-6400 mark will always coincide with the 0-6400

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31 July 1969

SUBJECT: Operation Report - Lessons Learned for the Period Ending 31 July 1969
RCS - CSFOR -65 (RI)

azimuth (at the top of the board) index on the template. The wind speeds and directions for the particular MET line numbers corresponding to the charges (81mm) or elevations (4.2-inch) being fired are noted in grease pencil on the clear plastic disc of the plotting board. Direction is indicated by a tick mark over the azimuth number on the disc and all speeds are noted next to the zero hair line. Total wind corrections in meters for range and mils for deflection are then figured by rotating the disc until the particular wind direction tick mark for the mission being fired is over the chart deflection to the target (thus orienting the zero hair line in the chart direction of wind) and multiplying the proper wind speed for the mission by the correction factors found beneath the zero hair line. The range and cross wind corrections are then applied in conjunction with registrations and subsequent met corrections, the mortars have a capability for accurate 6400 mil fire. Corrections for range due to the rotation of the earth were not included on the wind card because the corrections were not available from the Mortar Tabular Firing tables.

Recommendation: Registration corrections updated with subsequent non-directional mets and wind corrections should be used to determine the best data available for 81mm and 4.2-inch mortars.

3. Tactical Cover and Deception

Use of Artillery Fire to Cover the Noises of an Infantry Unit Setting up a Night Location

Observation: The noises made by an infantry unit establishing their night location often compromises the night location.

Evaluation: Once an infantry unit has started to establish its night location, this position has often been compromised due to the noises made by the infantry unit of cutting timbers and building bunkers for personnel. One method devised to cover this noise is to fire DT's for the infantry unit during the time they are establishing and building their night position. The noise of the artillery covers any noise created by the infantry unit.

Recommendation: That units be advised of this method of covering the noises created by infantry units in establishing their night location.

4. Training...NONE
5. Logistics...NONE
6. Organization...NONE
7. Personnel...NONE
8. Other...NONE

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31 July 1969

SUBJECT: Operation Report - Lessons Learned for the Period Ending 31 July
1969 RCS - CSFOR -65 (RI)

FOR THE COMMANDER:

John C Rose
JOHN C. ROSE
Major, FA
Adjutant

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AVDDH-GC-MH (31 Jul 69) 1st Ind

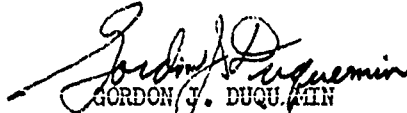
SUBJECT: Operational Report of Division Artillery, 4th Infantry Division
for Period Ending 31 July 1969

DA, HEADQUARTERS 4TH INFANTRY DIVISION, APO SF 96262 17 August 1969

Commanding General, I Field Force Vietnam, ATTN: AVFA-GC-HIST, APO SF 96262

(U) This headquarters has evaluated and concurs with the Division Artillery
Operational Report - Lessons Learned.

FOR THE COMMANDER:


GORDON J. DUQUEMIN
Colonel, GS
Chief of Staff

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AVFA-GC (31 Jul 69) 2nd Ind (C)

SUBJECT: Operational Report of Division Artillery, 4th Infantry Division
for period ending 31 July 1969

DA, Headquarters I Field Force Vietnam, APO 96350 12 SEP 1969

TO: CG, USARV ATTN: AVHGC-DST APO 96375

1. (U) This headquarters has evaluated subject report and forwarding
indorsement and concurs.

2. (C) The following comments are made in reference to Section II:

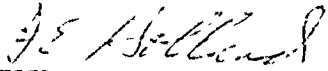
a. Para 1a: The TPQ/28, 6400 m, 18,000 meter radar is currently
undergoing development to counter the problem of an attack on two separate axis.
A camouflage net or any other material placed in front of the screen except a
radardome, will clutter up the scope. Recommend decoys of the sail on the Q4
be constructed of plywood and positioned as needed.

b. Para 1b, Survey by Counter Radar: The technique of locating
a battery center by utilization of the AN/MPQ 4 Radar can be found in Chapter
5, FM 6-161.

c. Para 2c, use of Pipe Culvert 72": Use of the 72" culvert with two to
three layers of sandbags on bunkers is standard practice throughout I Field
Force Vietnam Artillery.

d. Para 3, Tactical Cover and Deception: Unless an exorbitant amount
of ammunition is expended in firing the defensive targets the sounds of the
infantry will not be drowned out by the intermittent artillery. Firing of
defensive targets alone will pin point the units location.

FOR THE COMMANDER:


FREDERICK E. HOLLAND
1LT AGC
ASST AG

CF:

1 - CG, 4th Inf Div
1 - CO, 4th Inf Arty

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AVHGC-DST (31 Jul 69) 3d Ind

SUBJECT: Operation Report - Lessons Learned for the Period Ending 31 July 1969, RCS CSFOR-65 (R1)

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 16 OCT 1969

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT,
APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1969 from Headquarters, 4th Infantry Division Artillery.

2. Comments follow:

a. Reference item concerning "Intelligence", section II, page 21, paragraph 1; concur. The "clutter" described is caused by energy being reflected back to the radar antenna from the camouflaged material. Wet or dirty camouflage nets or other fiber or cloth coverings will cause "clutter" to occur. This can be prevented by not using camouflage during the monsoon season. When a camouflage material is used, it should be washed on a weekly basis to prevent an accumulation of dirt.

b. Reference item concerning "Use of Expanded 105mm Canisters for Securing M102 Base Plates", section II, page 22, paragraph 2b; concur. This is a valid field expedient. This item has been extracted and will be evaluated for possible inclusion in a USARV Training Newsletter.

c. Reference item concerning "Mortar Wind Corrections", section II, page 24, paragraph 2f; concur. Recommend that this item be forwarded by DA to the US Army Infantry School, Fort Benning, Georgia for evaluation and possible standardization throughout the Army.

FOR THE COMMANDER:

Cy furn:
4th Inf Div Arty
I FFV


C. D. WILSON
1LT, AGC
Assistant Adjutant General

GPOP-DT (31 Jul 69) 4th Ind
SUBJECT: Operational Report of HQ, 4th Infantry Division
Artillery for Period Ending 31 July 1969, RCS
CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 29 OCT 69

TO: Assistant Chief of Staff for Force Development, Department
of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:



C. L. SHORTT
CPT, AGC
Asst AG

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CO, 4th Infantry Division Artillery

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